

**EXPEDITED PROCEDURE  
UNDER 37 CFR §1.116  
GROUP ART UNIT 3653**

Express Mail Label No.: EV 376272320US  
Date of Deposit: September 16, 2005

U.S. Patent Appln. No. 10/608,629  
Attorney Docket No.: 27799-023

**REMARKS**

The application has been fully reviewed in light of the Final Office Action dated July 13, 2005. Claims 1, 2, 4-18 and 20-26-20 are pending, with claims 1, 9, 17, 25 and 26 being independent. Claims 3 and 19 were previously cancelled without prejudice and/or disclaimer of subject matter. The claims stand rejected under §§ 102 and/or 103.

*§102 & §103 Rejections*

Claim 1, 2, 4-18 and 20-26 were rejected under 35 U.S.C. §102 and §103 as reciting subject matter that would have been anticipated over U.S. patent no. 5,543,607 (Watanabe et al.), and obvious over Watanabe et al. in view of U.S. patent no. 5,420,606 (Begum et al.). For the following reasons, Applicants respectfully submit that the claimed invention is patentable over the prior art.

**The Invention**

Claim 1 is directed to an apparatus for transporting items for purchase at a checkout location. The apparatus includes a conveyor, a processing area (i.e., scanning area) positioned downstream from the conveyor for processing one or more items for purchase, a user proximity sensor for sensing a user at the processing area, a start sensor positioned at a first end of the conveyor located *farthest from the processing area* and a stop sensor positioned at a second end of the conveyor *near the processing area*. The conveyor transports one or more items upon the start sensor sensing the one or more items *prior to* the proximity sensor sensing a user and the conveyor stops upon one or more items being sensed by the stop sensor. Independent claim 17 recites similar patentable features.

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Claim 9 is directed to a method for transporting items along a conveyor for a checkout system. The method includes starting a conveyor in a transporting direction upon a first item being placed in proximity to a start sensor *prior to* a user being sensed by a user proximity sensor provided at a processing area (i.e., scanning area), transporting the first item beyond the start sensor, stopping the conveyor prior to the first item reaching an end of the conveyor if the user proximity sensor indicates that a user is absent at the processing area, transporting the first item toward the end of the conveyor if the user proximity sensor indicates a user is present at the processing area, transporting the first item toward the second end of the conveyor upon a second item being placed in proximity to the start sensor and stopping the conveyor upon the first item being sensed by a stopping sensor. Independent claims 25 and 26 recite similar patentable features.

It is a feature of the claimed invention that a conveyor for a self-checkout system transports items to a processing area *without the user being present at the processing area first*. As can be seen in Fig. 2, a user can approach the self-checkout system on the left hand side of the system and load the conveyor with items, without and prior to first approaching the processing/scanning area. After the conveyor has been loaded with items, the user can then move to the processing/scanning area to scan the items over a bar code scanner.

Applicants respectfully point out that, in the presently claimed invention, “processing area”, refers *only to the area of the apparatus where a customer scans products for purchase over a bar-code scanner*. See, generally, specification, page 7, lines 9-10; Fig. 2. Thus, the phrase “processing area”, as used in the present claims, **does not refer to any area for “preparing items for entry into or exit out of the machine”** as advocated by the Examiner in the outstanding Action.

#### The Cited Prior Art

Watanabe et al. is understood by Applicants to be directed to self-checkout system and point-of-sale system. Figures 1A and 1B are representative of the system disclosed in Watanabe et al. To that end, the system includes a belt conveyor, sensors for detecting the

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products (front sensors; rear sensors), a scanner for reading out, in the inside thereof, a bar code of products, a stocker divided into two portions for stacking the commercial products, a display, a keyboard, a stopper, switching lever for switching the stocker for stocking the commercial products, a printer a magnetic card reader/writer, a scanner, and a sensor for detecting an operator. In column 7, lines 50-56, Watanabe et al. states that the very first thing that occurs when using the system, is that the operator sensor detects the operator standing in front of the self-checkout system.

Belgum et al. is understood to disclose an electronic coupon verification system. Each shopper is provided with an electronic communications device having a display for displaying a graphic of a redemption coupon that represents a discount for an item in the store available for purchase. The communications device includes a selection button to enter the selection of the coupon indicating the user's desire to redeem the coupon and a memory to record the selection until the shopper reaches the checkout counter (see Abstract). Applicants do not understand why this reference was cited in the outstanding Office Action, as there are no statements in the Action which discuss the reference.

Analysis

"A claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." M.P.E.P. 2131, quoting, *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631, 2 U.S.P.Q.2d 1051, 1053 (Fed. Cir. 1987).

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With regard to obviousness, for one to establish a prima facie case of obviousness, three criteria must be met:

1. there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings;
2. there must be a reasonable expectation of success; and
3. the prior art references must teach or suggest all the claim limitation.

M.P.E.P. §2143.

After a careful review of the cited prior art and the claimed invention, Applicants maintain that the claimed invention is patentable and is neither anticipated nor obvious over the cited prior art. In particular, nothing could be found in either Watanabe et al. and Begum et al., either alone or in combination, which discloses, teaches or suggest the invention recited in claims 1, 9, 17, 25 and 26. More specifically, Applicants could not find all the features recited in the independent claims in either reference alone (i.e., neither reference anticipates the claimed invention). Furthermore, the combination of the cited references do not teach or suggest the invention recited in the independent claims.

In particular, neither reference, when taken alone or in combination, discloses, teaches or suggest an apparatus *having a processing area positioned downstream from a conveyor for processing one or more items for purchase, and/or where a start sensor positioned at a first end of the conveyor is located farthest from the processing area.*

Moreover, with respect to claim 9, the cited prior art fails to disclose, teach or suggest the starting of a conveyor in a transporting direction upon a first item being placed in proximity to a start sensor prior to a user being sensed by a user proximity sensor provided at a processing area. While Fig. 1A of Watanabe et al. discloses an operator sensor 63 for detecting an operator and commercial product sensor 52 for sensing a

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commercial product optically, the Watanabe et al. **does not disclose the arrangement of such sensors as recited in the instant claims**, nor does the reference disclose the corresponding method step as described above.

The above noted claimed features allow a shopper to load a conveyor of a self-checkout system with items for purchase *prior to* scanning the items in a processing/scanning area. While the shopper places items on the conveyor, the start sensor starts the conveyor so that the placed items are transported toward the processing/scanning area. If the shopper is not at the processing/scanning area, an item is transported just beyond the start sensor, and the conveyor stops until another item is placed on the conveyor adjacent the start sensor. When an item which was initially placed on the conveyor is sensed by the stop sensor located adjacent the processing/scanning area, the conveyor does not continue to transport items (i.e., the conveyor is full). Accordingly, the shopper then walks over to the processing/scanning area and begins scanning items. The proximity sensor senses the shopper and allows the conveyor to move once all items that block the stop sensor are cleared. See Fig. 4.

Accordingly, neither Watanabe et al. nor Begum et al. include *a conveyor - processing area and sensor (i.e., scanning area) arrangement* as recited in the claims (and disclosed in the specification). Moreover, neither reference, discloses, teaches or suggests a method of transporting items along a conveyor belt in a self-checkout apparatus, where the conveyor is started in transporting direction, upon a first item being placed in proximity to a start sensor *prior to a user being sensed by a user proximity sensor provided at a processing area*. Applicants respectfully submit that the above noted arrangement of features would not be considered obvious in view of the cited art.

Thus, Applicants respectfully submit that the claims 1, 9, 17, 25 and 26 are patentable over the cited prior art. Since the remainder of the pending claims are each dependent upon one or another of the independent claims, they are patentable for the same reasons. Accordingly, withdrawal of the prior art rejections against the claims is not respectfully requested.

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**CONCLUSION**

In view of the foregoing amendments and remarks, Applicants submit that the issues raised in the Office Action of July 13, 2005 have all been addressed, and that the present application is condition for allowance. Applicants note that this Response After Final is an earnest attempt at further prosecution on the merits, and thus, Applicants respectfully request favorable reconsideration and entry of this response, as well as early passage to issue for the present application.

It is believed that no additional fees are due with respect to the number of claims. In the event that it is determined that any additional fees are due in such respects, the Director is hereby authorized to charge the undersigned's Deposit Account No. **50-0311**, reference attorney docket no. 27799-023, Customer No. 35437.

Applicants' undersigned attorney may be reached in our New York office by telephone at (212) 692-6803. All correspondence should continue to be directed to our address given below.

Respectfully submitted,

  
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